

What is claimed is:

1. A dynamic bandwidth assignment system including a network unit for carrying out cell slot assignment, and a network termination for transmitting cells to the network unit by means of cell slots assigned by the network unit, said network unit comprising:

a detecting section for detecting a number of valid cells said network unit receives from said network termination;

a decision section for outputting a decision result in accordance with the number of valid cells; and

a cell slot assignment section for controlling the cell slot assignment to the network termination in response to the decision result of said decision section.

2. The dynamic bandwidth assignment system according to claim 1, wherein said decision section supplies its decision result to said cell slot assignment section when a number of consecutive valid cells said network unit receives from said network termination exceeds a first predetermined threshold value, and wherein said cell slot assignment section increases the number of the cell slots to be assigned to said network termination in response to the decision result.

3. The dynamic bandwidth assignment system according to claim 1, wherein said decision section supplies its decision result to said cell slot assignment section when a number of valid cells said network unit receives from said network termination in a decision period becomes less than a second predetermined threshold value, and wherein said cell slot assignment section reduces a number of the cell slots to be assigned to said network

termination in response to the decision result.

4. The dynamic bandwidth assignment system according to claim 1, wherein said decision section supplies its decision result to said cell slot assignment section when a number of valid cells said network unit receives from said network termination in a decision period exceeds a first predetermined threshold value, and wherein said cell slot assignment section increases a number of the cell slots to be assigned to said network termination in response to the decision result.

5. The dynamic bandwidth assignment system according to claim 2, wherein said decision section determines the first threshold value in accordance with the total number of cells said network unit receives from said network termination in the decision period.

6. The dynamic bandwidth assignment system according to claim 3, wherein said decision section determines the second threshold value in accordance with the total number of cells said network unit receives from said network termination in the decision period.

7. The dynamic bandwidth assignment system according to claim 4, wherein said decision section determines the first threshold value in accordance with the total number of cells said network unit receives from said network termination in the decision period.

8. A dynamic bandwidth assignment method in a network unit

comprising the steps of:

producing a decision result in accordance with a number of valid cells said network unit receives from a network termination; and

5 controlling cell slot assignment to the network termination in response to the decision result.

9. The dynamic bandwidth assignment method according to claim 8, wherein when a number of consecutive valid cells said network
10 unit receives from said network termination exceeds a first predetermined threshold value, the step of controlling cell slot assignment increases the number of the cell slots to be assigned to said network termination in response to the decision result.

15 10. The dynamic bandwidth assignment method according to claim 8, wherein when a number of the valid cells said network unit receives from said network termination becomes less than a second predetermined threshold value, the step of controlling cell slot
20 assignment decreases the number of the cell slots to be assigned to said network termination in response to the decision result.

11. The dynamic bandwidth assignment method according to claim 8, wherein when a number of the valid cells said network unit receives from said network termination exceeds a first
25 predetermined threshold value, the step of controlling cell slot assignment increases the number of the cell slots to be assigned to said network termination in response to the decision result.

12. The dynamic bandwidth assignment method according to claim
30 9, wherein the first threshold value is determined in accordance

with the total number of cells said network unit receives from said network termination in the decision period.

13. The dynamic bandwidth assignment method according to claim 5 10, wherein the second threshold value is determined in accordance with the total number of cells said network unit receives from said network termination in the decision period.

14. The dynamic bandwidth assignment method according to claim 10 11, wherein the first threshold value is determined in accordance with the total number of cells said network unit receives from said network termination in the decision period.